CLAIMS

1. A strain sensor comprising:

a substrate on which a first hole passing though from a first face to a second face is provided, the first face and second face opposing each other;

a strain-detecting element provided on at least one of the first face and the second face; and

a first fixing member including a first washer and a second washer, the first fixing member being fixed onto the substrate by inserting at least one of the first washer and the second washer into the first hole so that the substrate is sandwiched and held with the first washer and the second washer.

2. The first strain sensor as defined in Claim 1, wherein the first washer has a first insertion part and the second washer has a second insertion part, and the first insertion part is inserted into the first hole with clearance to the first hole and the second insertion part is press-fitted to an internal periphery of the first insertion part.

3. The strain sensor as defined in Claim 1, wherein the first washer has a round first contact head attached to the first face of the substrate, and the second washer has a round second contact head attached to the second face of the substrate.

4. The strain sensor as defined in Claim 1, wherein the first washer has a third insertion part, the second washer is provided with a second hole, and the third insertion part is press-fitted in the second hole.

5. The strain sensor as defined in Claim 1, wherein the substrate is provided with a third hole, and the strain sensor further has a detection member for receiving a strain force of a measurement target, the detection member comprising a third washer and a fourth washer, at least one of the third washer and the fourth washer being inserted into the third hole, and the detection member being fixed onto the substrate by sandwiching and holding the substrate with the third washer and the fourth washer.

6. The strain sensor as defined in Claim 5, wherein the third washer has a fourth insertion part, the fourth washer has a fifth insertion part, the fourth insertion part is inserted into the third hole with clearance to the third hole, and the fourth insertion part is press-fitted to an internal periphery of the fifth insertion part.

7. The strain sensor as defined in Claim 5, wherein the third washer has a round third contact head touching the first face of the substrate, and the fourth washer has a round fourth contact head touching the second face of the substrate.

8. The strain sensor as defined in Claim 5, wherein the third washer has a sixth insertion part, and a fourth hole is provided on the second washer, and the sixth insertion part is press-fitted into the fourth hole.

9. The strain sensor as defined in Claim 1, wherein the substrate is provided with a fifth hole equivalent to the first hole, and the strain sensor further has a second fixing member including a fifth washer and a sixth washer by inserting

wherein at least one of the fifth washer and the sixth washer is inserted into the fifth hole, and the second fixing member is fixed onto the substrate by sandwiching and holding the substrate with the fifth washer and sixth washer.

10. The strain sensor as defined in Claim 9, wherein the substrate is provided with a third hole, the strain sensor further has a detection member for receiving a strain force of a detection target, the detection member being provided between the first fixing member and the second fixing member and having a third washer and a fourth washer, at least one of the third washer and the fourth washer is inserted into the third hole, and the detection member is fixed onto the substrate by sandwiching and holding the substrate with the third washer and the fourth washer.